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| EXAMINER | |
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| THERIAULT, STEVEN B | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/637,433 | ALDRICH, WILLIAM J. | |
| | Examiner | Art Unit | |
| | Steven B. Theriault | 2179 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-5 and 7-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is responsive to the following communications: Amendment filed 07/05/2007.

**This action is made Final.**

2. Claims 1–5, 7-23 are pending in the case. Claims 1, 12, and 23 are the independent claims. Claim 24 has been cancelled.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

With regard to **claim 23,** the computer-program product thus defined in the specification includes media such as a " **propagated signal**" (Page 6, Para 1, lines 1-12) that renders the claim non-statutory subject matter. The present application specification, as noted above, sets forth evidence that the computer program product is intended to include items, which one of ordinary skill in the art would have recognized as propagation or transmission media, which is a form of energy. Therefore, consistent with MPEP 2106, the claimed subject matter is not currently believed to be limited to that which falls within a statutory category of invention, because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy.

*Applicant's argument that claim 23 contains a computer readable medium with the product*

Applicant argues that the program product of claim 23 does not recite that the program product contains a propagated signal, as the Examiner has argued and therefore the rejection should be dropped (See arguments page 5, middle).

The Examiner disagrees.

For clarity, the present application states the following:

The invention can be implemented in digital electronic circuitry, or in computer hardware, firmware, software, or in combinations of them. **The invention can be implemented as a computer program product, i.e., a computer program tangibly embodied in an information carrier, e.g., in a machine-readable storage device or in a propagated signal, for execution by, or to control the operation of, data processing apparatus, e.g., a programmable processor, a computer, or multiple computers.** A computer program can be written in any form of programming language, including compiled or interpreted languages, and it can be deployed in any form, including as a stand-alone program or as a module, component, subroutine, or other unit suitable for use in a computing environment. A computer program can be deployed to be executed on one computer or on multiple computers at one site or distributed across multiple sites and interconnected by a communication network (See page 6, Para 1).

The Examiner rejected the product claim for the reasons as follows... 1) the claim does not clearly recite an acceptable structure for a product claim where the claim can be considered one of the four categories of invention. The claim is not a process, article, machine nor composition of matter. Clearly, the composition is not in focus, and there is no mention of a method or a machine in claim 23. For the claim to be an article, the structure must be clear that one of the elements of the product brings the medium together with the other elements of the product so that the medium is included. Otherwise, the product is a set of items compiled to make software per se. Software components can be stored on a medium and still be rejected as non-statutory, if there isn't a clear concrete, tangible, and useful result to the claim. In claim 23, there isn't a clear structure of the system claim 23 that states a processor, a display, or CPU, for which the components of the system can be construed as something other then components stored on a medium because there is no transformation of the steps into a concrete and tangible result. 2) Finding support for the computer program product in the specification, as defined above, it is clear that the product can be comprised of a number of items to make a product. The claim does

not make it clear that one of the elements of the product does not include the non-statutory propagated signal, as defined. Upon consideration of the definition above, it is clear that the applicant intends the product to be embodied in an information carrier that includes a propagated signal, which under MPEP 2106 is not a considered to be a tangible computer readable medium. Therefore, the Examiner maintains the rejection as stipulated in the previous rejection because the claim can be considered as software per se because the system claims lack a structure for realizing a tangible result and it is not clear which elements of the product are put together to make the claim fall into one of the four categories of invention.

**To expedite a complete examination of the instant application the claims rejected under 35 U.S.C 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.**

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-5, 7, 10, 12-17, 21, 23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Belcsak et al (hereinafter Belcsak) US. Patent no. 6,957,191 issued Oct. 18, 2005 and filed Sept. 14, 2000, or (Belcsak in view**

**of Softky et al) (hereinafter Softky) U.S. Patent No. 6763497 issued July 13, 2004 and filed Apr. 26, 2000.**

In regard to **Independent claim 1,** Belcsak teaches a method comprising:

- Performing an analysis or synthesis operation on a graphical model representation that includes at least one graphical object (See column 2, 55-67 and column 3, lines 1-35). Belcsak teaches a process of performing an analysis on a graphical model. Belcsak teaches that the graphical representation includes at least one graphical object (See figure 14 and column 9, lines 40-50). A graphical box that is dragged by the user is a graphical object.
- Producing a report from the analysis or synthesis operation (column 7, lines 60-67 and column 16, lines 16-50). Belcsak teaches producing a report from the analysis of the model.
- Generating associations associating elements of the graphical model representation with corresponding elements in the report (column 9, lines 35-67). Receiving a selection of the graphical object in the graphical model representation (See column 9, lines 50-67, a user double click is receiving a selection); displaying at least one element of the report in response to the selection Belcsak teaches that each item on the diagram have associations within the model and correspond to elements of the report. Belcsak shows associations in a graphical form in figure 15, and Belcsak teaches the user can click on an item and the system shows the user more information about the object, which also includes a menu item that can link the user to the report item as shown in figure 12, where the diagram is on the left and the report is on the right.

**In the alternative,** if the limitation of "receiving a selection of the graphical object in the graphical model and displaying the element in the report in response to the selection, can be interpreted as the user selecting an item within a document object model where the model is displayed within a graphical interface and in response the graphical interface displays an HTML page with a nested set of windows describing the code and the response to each selection, without redirecting the

user away from the page, then the teachings of Softky can be used to modify the teachings of Belcsak (See column 4, lines 50-67 and column 5, lines 1-25 and column 6, lines 10-67 and Figure 6c). Softky shows a user interacting with the graphical representation of an expression or document model within an HTML document, the user selects, and item with the response from the system and the information is displayed to the user. The motivation to combine Belcsak with Softky comes from the suggestion to analyze errors in test paths and display the information from a simulated or actual test of a scenario and have the information visually located next to the function that failed (See column 1, lines 45-65, which is similar to Belcsak in modeling a financial scenario with a user and the model displays results and if the parameters are not acceptable, to the user as shown in the report, then they can alter the simulation until the model reflects as they desire.

With respect to **dependent claim 2,** Belcsak teaches the method in which the report is a document structured with portions corresponding to different elements of the graphical model representation (column 9, lines 15-30 and column 16, lines 16-50).

With respect to **dependent claim 3,** Belcsak teaches the method in which the document is a structural coverage report (Belcsak column 16, lines 15-50). Belcsak shows the report covers the foundation of the financial model and how it is calculated, which covers how the structure of a financial transaction is executed between two parties.

With respect to **dependent claim 4,** Belcsak teaches the method in which the document is a code generation report incorporating syntax highlighted code (column 13, lines 5-10). Belcsak teaches the code is generated in a report (See figure 21).

With respect to **dependent claim 5,** Belcsak teaches the method in which the document is a profiling report that documents relative execution times of each of the elements (Belcsak column 10, line 11-45). Belcsak teaches a process of entering the execution time of the financial model, which corresponds, to payments that flow from the parties. The longer the payment period will cause a

longer execution time of the lease.

With respect to **dependent claim 7,** Belcsak teaches the method further comprising loading an element in the report in response to activating a graphical object on the graphical model representation and activating with a mouse (column 9, lines 30-67). Belcsak teaches the users can drag-n-drop new elements to be added to the model. The drag operation is performed using an input tool

With respect to **dependent claim 10;** Belcsak teaches the method in which the report is a model coverage report (See figure 21 and column 16, lines 15-50). Belcsak teaches the entire model structure is covered in the reports generated by the system (See also column 7, lines 60-67).

In regard to **Claims 12-17, and 21,** claims 12, 14-17, and 21 reflect the system comprising computer readable instructions for performing the steps of method claims 1, 2-5, and 10 respectively, and in further view of the following, are rejected along the same rationale. Belcsak teaches that the elements of the graphical model can be loaded and changed by the user as selected within the interface (See example Figures 15-21). Belcsak also teaches the means within a system for displaying in an interface a graphical model that the user designs and from the model an analysis is run to determine the outcome of a financial transaction. Belcsak teaches that reports are generated that show the different sections of the transaction and the reports show the code in which the model was executed in the interface.

**The examiner notes the support in the specification for the program product on page 6 of the specification.**

In regard to **Independent claim 23,** Belcsak teaches the computer program product residing on a computer readable medium having instructions stored thereon which, when executed a processor, cause the processor to:

- Performing an analysis or synthesis operation on a graphical model representation that includes at least one graphical object (See column 2, 55-67 and column 3, lines 1-35).

Belcsak teaches a process of performing an analysis on a graphical model. Belcsak teaches that the graphical representation includes at least one graphical object (See figure 14 and column 9, lines 40-50). A graphical box that is dragged by the user is a graphical object.

- Producing a report from the analysis or synthesis operation (column 7, lines 60-67 and column 16, lines 16-50). Belcsak teaches producing a report from the analysis of the model.
- Generating associations associating elements of the graphical model representation with corresponding elements in the report (column 9, lines 35-67). Receiving a selection of the graphical object in the graphical model representation (See column 9, lines 50-67, a user double click is receiving a selection); displaying at least one element of the report in response to the selection Belcsak teaches that each item on the diagram have associations within the model and correspond to elements of the report. Belcsak shows associations in a graphical form in figure 15, and Belcsak teaches the user can click on an item and the system shows the user more information about the object, which also includes a menu item that can link the user to the report item as shown in figure 12, where the diagram is on the left and the report is on the right.

**In the alternative,** if the limitation of "receiving a selection of the graphical object in the graphical model and displaying the element in the report in response to the selection, can be interpreted as the user selecting an item within a document object model where the model is displayed within a graphical interface and in response the graphical interface displays an HTML page with a nested set of windows describing the code and the response to each selection, without redirecting the user away from the page, then the teachings of Softky can be used to modify the teachings of Belcsak (See column 4, lines 50-67 and column 5, lines 1-25 and column 6, lines 10-67 and Figure 6c). Softky shows a user interacting with the graphical representation of an expression or document model within an HTML document, the user selects, and item with the response from the system and the information is displayed to the user. The motivation to combine Belcsak with Softky comes from the suggestion to analyze errors in test paths and display the information from a simulated or actual test of a scenario and have the information visually located next to the

function that failed (See column 1, lines 45-65, which is similar to Belcsak in modeling a financial scenario with a user and the model displays results and if the parameters are not acceptable, to the user as shown in the report, then they can alter the simulation until the model reflects as they desire.

***Claim Rejections - 35 USC § 103***

6. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action**:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 8-9, 11, 18-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belcsak et al (hereinafter Belcsak) US. Patent no. 6,957,191 issued Oct. 18, 2005 and filed Sept. 14, 2000,** or, in the alternative, (Belcsak in view of Softky et al) (hereinafter Softky) U.S. Patent No. 6763497 issued July 13, 2004 and filed Apr. 26, 2000 as applied to claims 1-7, 10, 12-17, 21, 23 above, **in further view of Weinman (hereinafter Weinman) U.S. Patent No. 6,339,838 issued Jan. 15, 2002 and filed Jan. 2, 1998.**

With respect to **dependent claims 8-9, 11, 18-20, and 22** as indicated in the above discussion Belcsak teaches every limitation of claim 1.

Belcsak teaches that the system is a web-based platform, which would provide the structure to have a web page and the elements of the graphical model rendered in a browser.

Belcsak also teaches that a report is generated for each of the sections of the model.

Belcsak does not provide a specific example where the individual associations within the reports are markup tags and that the tags are HTML tags and that the report that is generated is a generated code report.

However, in the same problem area of automatically generating reports from graphical models, Weinman teaches a process of using software generation tools extracted from a graphical model where the model elements are expressed as HTML elements and tags (See column 10, lines 40-50 and column 13, lines 15-67 and column 14, lines 1-31). Further, Weinman teaches the code generated by the system changes are then fed into the model and displayed on the interface to aid the user in determining if the model parameters achieve the desired outcome (See column 2, lines 35-67 and column 7, lines 50-67). Belcsak and Weinman both teach a process of allowing a user to model a process graphically and then running processing on the model and allowing the user to view the results or outcome of a simulated process.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Belcsak and Weinman in front of them, to modify the system of Belcsak to include the associations as HTML tags and to produce a code report showing the underlying structure of the HTML report document. The motivation to combine Weinman with Belcsak comes from the suggestion in Weinman that modeling or studying a process comes from the steps of capturing, describing, and then documenting in **some selected** language the process under consideration and then using the software model in the computers that are modeling the process such as HTML objects in a browser (See column 1, lines 25-35 and column 2, lines 19-30).

With respect to **dependent claim 20,** as indicated in the above discussion, Belcsak in the view of Weinman teaches each limitation of claim 18.

Belcsak teaches that general formatting and cosmetic formatting capabilities are provided in similar to commercially provided word processing and spreadsheet applications (See column 17, lines 15-25).

Belcsak does not expressly teach a system in which the markup language tags are portable document format (PDF) embedded links. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Weinman, because Weinman teaches that a variety of software code generation tool formats can be utilized to display graphical objects and their graphical properties in the display, which would include HTML element and PDF elements as PDF is a type of word processing application.

**It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re *Heck*, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re *Lemelson*, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).**

***Response to Arguments***

Applicant's arguments filed 07/05/2007 have been fully considered but they are not persuasive.

*Applicant's argument that the cited section does not disclose generating an association between elements because the applicant does not interpret the prior art as teaching associating to display a report (See arguments page 7, top).*

The Examiner disagrees.

Belcsak expressly teaches a process of the user dragging and dropping an item to create an association to a party in the lending agreement, which is modeled in the graphical representation, as recited in column 9, lines 35-67) and is a user selecting an item within a graphical model and a system that displays the selection to the user. The user can double click on the item and the system will direct the user to more detailed information about the item. The cited section also refers to figures 14 and 15, which expressly

show the user making a change to a model and the report will reflect the change as the arrows directly follow the change (lines 55-60). Further, MPEP 2144 and 2123 state the entire reference is available not just for the cited sections but also for all that is suggests to one of ordinary skill in the art and, in this case, the Examiner notes the reference discusses the same embodiment in several sections of the reference, namely column 18, lines 1-16, where Belcsak states the user in figures 5-12, makes a change and the system updates the associations to the financial models.

*Applicant argues that claim 12 requires a means for function for each limitation*

Applicant argues that claim 12 recites the 112 6$^{th}$ functions of means for within the recited limitations and therefore Belcsak does not disclose the recited features (See arguments page 8, Top).

The Examiner disagrees.

In examining the specification for the structure, acts and means for each claim limitation of the claim 12, the examiner finds the following sections to support the claim.

1. Means for performing analysis on a graphical model (See page 3, Para 4, lines 1-5). The present application states, "A model can be represented as a diagram source model language". In contrast, Belcsak teaches the Cad like interface to visually model the flow of instruments in a transaction, which is a modeling language but can be considered a modeling tool for performing analysis of a diagrammed model.

2. Means for producing a report (See Page 3, Para 4, lines 1-5). The present application states, " The analysis generates a report". In contrast, Belcsak states the modeling of parties generates a report (See column 3, lines 5-20) and column 16, lines 15-50), which is similar.

3. Means for generating associations associating elements of the model representation with corresponding element in the report (See Page 4, Para 3, lines 1-8). The present application states, " Associations are hyperlinks". In contrast, Belcsak teaches the system in written in HTML and in a web-based platform (See column 9, lines 1-5), which is of the same structure.

4. Means for receiving a selection of a graphical object in the model (See Page 4, Para 4,lines 1-5) The present application states " an editor that is responsive to mouse actions". In contrast, Belcsak

teaches the user can click on a diagram in the editor to control and create the model (See column 9, lines 30-60), which is of the same structure.

5. Means for displaying an element of the report in response to the selection (See Page 4, Para 4,lines 1-5) The present application states "the result of the mouse action is the document tag is displayed in the editor", In contrast, Belcsak teaches the user double clicks and the information is retrieved in a web based document (See column 9, lines 1-10 and 55-67), which teaches the same handling of mouse events in the interface.

Therefore, the Examiner believes upon examination of the specification that the structure of the prior art teaches a similar means of manipulating a graphical model so that a user can select an object and have the related information displayed to the user in a report.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
U.S. Patent No. 6160549 to Touma, which discloses a process of generating a report from a declarative model of graphical objects and running simulation on the configured model.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

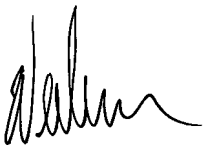
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M, W, F 10:00AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven B Theriault/
Patent Examiner
Art Unit 2179



WEILUN LO
SUPERVISORY PATENT EXAMINER